

THIR UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHAML COME:

Seed Research of Pregon

MICCOLS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE REGORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE NICHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR ORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT Q BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Grande II'

In Testimonn Morreof, I have hereunto set my hand and caused the seal of the Hant Hariety Frotection Office to be affixed at the City of Washington, D.C. this sixteenth day of Way, in the year two thousand and eight.

Attest:

Qe-z-

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Colmand Tixbehafe

f Agriculture

	REPRODUCE LOCALLY. Include form number and d	late on all reprodu	uctions				Form Approved - OMB No. 0581-0055
	AGRICULTURAL	NT OF AGRICULT MARKETING SER	VICE		ne following statements are made li ne Paperwork Reduction Act (PRA)		e with the Privacy Act of 1974 (5 U.S.C. 552a) an
	SCIENCE AND TECHNOLOGY - F APPLICATION FOR PLANT VA (Instructions and information co	RIETY PROTECT	ION CERTIFICATE	A)	oplication is required in order to det U.S.C. 2421). Information is held	ermine if a p confidential	olant variety protection certificate is to be issued until certificate is issued (7 U.S.C. 2426).
•	1. NAME OF OWNER			2	TEMPORARY DESIGNATION OF EXPERIMENTAL NAME	3. VA	RIETY NAME
	Seed Research of Oregon				SRX 84RH00	Gran	nde II
•	4. ADDRESS (Street and No., or R.F.D. No., City,	State, and ZIP Co	de, and Country)	5.	TELEPHONE (include area code)		FOR OFFICIAL USE ONLY
	27630 Llewellyn Rd. Corvallis, OR 97333	-			(541) 757-2663		NUMBER
	Corvains, OR 973.5	magni	****	Ī	FAX (include area code) 541) 758-5305	FILING	LOO 400272
	7. IF THE OWNER NAMED IS NOT A "PERSON", ORGANIZATION (corporation, partnership, asso		8. IF INCORPORATED, GIVE STATE OF INCORPORATION		DATE OF INCORPORATION	10	200 400292 ingust 11,2004
	Division of Research Seeds		MO				
	10. NAME AND ADDRESS OF OWNER REPRESS Dr. Leah A. Brilman Seed Research of Oregon 27630 Llewellyn Rd. Crorvallis, OR 97333	entative(s) to :	SERVE IN THIS APPLICATION. (F	irst perso	n listed will receive all papers)	FBB\$ RECE-V E D	FILING AND EXAMINATION FEES: \$ 365000 DATE \$ 11/2004 CERTIFICATION FEE: \$ 768.00 DATE 4/14/2008
-	11. TELEPHONE (Include erea code)	12. FAX (Includ	de area code)		13. E-MAIL	<u> </u>	
3/5/6	(8)(541) 758-9115 757-2663	ł '	2-2065 758-5305	7	srofarm@attglobal.net		
	14. CROP KIND (Common Name)	16. FAMILY N		<u></u>	18. DOES THE VARIETY CON	TAIN ANY 1	RANSGENES? (OPTIONAL)
	Tall Fescue	Poacea			☐ YES ☑ NO		
-	15, GENUS AND SPECIES NAME OF CROP	17. IS THE VAI	RIETY A FIRST GENERATION HY	BRID?			OUSDA-APHIS REFERENCE NUMBER FOR T LATE THE GENETICALLY MODIFIED PLANT F
	Festuca arundinacea	☐ YES	☑ NO		COMMERICALIZATION.		
-	19. CHECK APPROPRIATE BOX FOR EACH ATT (Follow instructions on reverse)	ACHMENT SUBM	ITTED		OF CERTIFIED SEED? (S	ee Section	EED OF THIS VARIETY BE SOLD AS A CLAS 83(a) of the Plant Variety Protection Act)
	a. Exhibit A. Origin and Breeding History	of the Variety			YES (If 'yes', enswer	er items 21 o	end 22 below) NO (If "no", go to item 23 SEED OF THIS VARIETY BE LIMITED AS TO
	b. Z Exhibit B. Statement of Distinctness				NUMBER OF CLASSES?		
	c. Exhibit C. Objective Description of Var	riety			L YES L NO		
	d. Z Exhibit D. Additional Description of the	e Variety (Optional))				INDATION DREGISTERED DERTIFIE EED OF THIS VARIETY BE LIMITED AS TO
	e. Exhibit E. Statement of the Basis of the	ie Owner's Owners	ship		NUMBER OF GENERATIO		SEED OF THIS VARIETY BE EMITTED AS TO
	Voucher Sample (2.500 viable untreation that tissue culture will be dispository)				YES NO		, etc., FÓR EACH CLASS.
. :	g. Fiting and Examination Fee (\$3,652), in States* (Mail to the Plant Variety Protection)		reasurer of the United				ED CERTIFIED clease use the space indicated on the reverse.)
•••	23. HAS THE VARIETY (INCLUDING ANY HARVE FROM THIS VARIETY BEEN SOLD, DISPOSE OTHER COUNTRIES?				24. IS THE VARIETY OR ANY	COMPONE	NT OF THE VARIETY PROTECTED BY PLANT BREEDER'S RIGHT OR PATENT)?
	☑ YES ☐ NO				YES V)	
	IF YES, YOU MUST PROVIDE THE DATE OF FOR EACH COUNTRY AND THE CIRCUMSTA	FIRST SALE, DIS ANCES. (Please u	POSITION, TRANSFER, OR USE ise space indicated on reverse.)		IF YES, PLEASE GIVE COU REFERENCE NUMBER. (P		TE OF FILING OR ISSUANCE AND ASSIGNED page indicated on reverse.)
	25. The owners declare that a viable sample of bas a tuber propagated variety a tissue culture will in The undersigned owner(s) is(are) the owner of entitled to protection under the provisions of Se Owner(s) is (are) informed that false represents	be deposited in a parties sexually repro- this sexually repro- action 42 of the Pla	public repository and maintained for duced or tuber propagated plant va nt Variety Protection Act.	r the dure utety, and	tion of the certificate.		with such regulations as may be applicable, or orm, and stable as required in Section 42, and
	Olah a. Bri	ma			TURE OF OWNER		
-	NAMI (Piesse print or type) Leah A. Brilman			NAME	(Piease print or type)		
				CAPAC		DATE	

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filling fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Betsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvpindex.htm

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Battimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a, Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

 March, 2004 United States
- 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-94 to or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Exhibit A.

Origin and Breeding History of Grande II Tall Fescue

Grande II tall fescue (*Festuca arundinacea* Schreb.) is a low-growing, dark green, fine-leaved, turf-type tall fescue selected from the maternal progenies of 17 different clones.

The parental germplasm of Grande II tall fescue traces its origin to plants selected from old turfs of the United States in a germplasm collection program initiated in 1962 and to plants selected from or related to Rebel tall fescue (Funk et al., 1981). Attractive clones were selected from old turfs in Birmingham, AL; Athens, Atlanta, and Millegeville, GA; Preston, ID; Baltimore, MD; Bayonne, Jersey City, Elizabeth, Princeton, and Cape May, NJ; eastern North Carolina; Philadelphia, PA; Nashville, TN; Lexington, KY; Cincinnati, OH; Dallas, TX; and northern Mississippi. The tall fescue plants selected from old turfs were of unknown origin. All were large patches of turf surviving in stressful environments indicating that they had persisted and developed over a period of many years.

A few hundred attractive, turf-type plants were collected and established in spaced-plant nurseries and/or frequently mowed clonal evaluation trials at Rutgers University. All but a few dozen of the most promising plants were quickly discarded. The best selections were very different from any tall fescue variety in existence at the time of collection. They produced lower-growing turfs with finer leaves, greater density, darker color, and greater tolerance of close mowing.

The parental clones used to develop Grande II came from many different cycles of plants received from the breeding program at Rutgers University and subjected to varying numbers of selection cycles by Seed Research of Oregon in Oregon, Missouri and New Jersey. Clonal plants that were from three to six years old that had rhizomes developed, were dwarf and fine textured were moved from existing breeder blocks into a separate breeder block in 1999. These plants were matched for growth from, maturity date and breeding background and placed in separate blocks. The parental plants for Grande II came from 17 plants, six single plants selected from the endophytic plants in Grande, three single plants from PRO 8430, derived from three cycles for brown patch

resistance in MO and turf quality in MD from original Grande germplasm, one plant from Grande selected for stem rust resistance in Oregon derived from clonal material from Grande in MO, and seven single plants that were single plants selected from the germplasm that later became SR 8600. These seven plants came from large numbers of single-plant progenies that were seeded in turf evaluation trials at the Plant Science Research Farm at Adelphia, NJ in 1995. The plants selected for progeny evaluation were selected from spaced-plant nurseries at Adelphia following varying cycles of phenotypic and genotypic selection of germplasm selected from old turfs and germplasm selected from or related to Rebel tall fescue. Following a period of summer stress due to heat, drought, and disease, a total of 1,900 plants were selected from 19 of the best performing single-plant progeny turf plots. All 19 progenies were from the 1995 test. Selection of progenies was based on performance records, as well as appearance at the time the plants were selected from these progeny plots. Selection of plants from each progeny was based on an attractive dark green color, fine leaves, abundant tillering, and freedom from disease. Selected plants were sent to Seed Research of Oregon in the fall of 1996. In 1997 and 1998, Seed Research of Oregon classified the plants received from Rutgers based on maturity, height, color and leaf texture. A total of 1295 plants were established of this material and, after elimination of many plants, superior plants were moved to multiple blocks. The plants that contributed to Grande II included W 65-6 derived from A 95-614, W62-23 and W62-16 both derived from A95-308, W54-22 from A95-507, W72-9 from A95-502, W71-26 from A95-267 and W60-10 from A95-313. The 17 plants were planted in isolation in 2000 and 70 progeny from each line established in the fall of 2000. Less than 10% of the block was removed due to differing color, heading date and or growth form. The first Breeder Seed was produced in 2001. The Breeder Block will be maintained until sufficient seed is produced for the life of the variety.

Grande II forms a high quality turf with a dark green color and dwarf growth habit. It contains high endophyte levels. Grande II is a stable and uniform variety. A few variants that are earlier than the rest of the variety have been observed in the foundation field (less than 1%) in spring, 2002. An examination of the Breeder block showed one clone showing an earlier heading date than the previous two springs it had been observed. The first foundation field was established in the fall of 2001. Three

generations of increase are approved. The variety has been observed to be uniform and stable for three generations from 2002 to present.

References

- Buckner, R. C., J. B. Powell, and R. V. Frakes. 1979. Historical Development, in Buckner, R. C., and L. P. Bush (editors) Tall Fescue. Agronomy Monograph 20.
 American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Inc., Publishers. Madison, Wisconsin pages 1-8.
- 2. Funk, C.R., R.E. Engel, W.K. Dickson, and R.H. Hurley. 1981. Registration of Rebel tall fescue. Crop Sci. 21:632.

Diagram of Origin and Breeding History of Grande II Tall Fescue

1. 1962 to 1989

Germplasm collection, evaluation, and genetic improvement.

2. 1989

Planted single-plant progenies of plants selected from current cycles of population improvement programs in closely mowed turf trials at Adelphia and North Brunswick, NJ. Plants that were NJESD sent to Seed Research to develop Grande.

3. 1991

Twenty-seven plants from NJESD identified with endophyte, used to establish 1020 plant nursery that crossed with original breeder block of NJESD and produced breeder seed of Grande.

4. 1993

Superior plants from Grande with endophyte moved to new farm.

5. 1992 to 1996

Progeny from Grande cycled three times based on rust resistance, seed yield, brown patch resistance, turf performance in Maryland to develop PRO 8430.

6. 1996

Selected 1,900 plants from 19 of the best performing single-plant progeny turf plots planted in 1995 at Rutgers Selected plants were sent to Seed Research of Oregon for further selection and classification.

7. 1997

Plants were selected and rouged according to growth habit, fine leaf texture, freedom from disease and seed yield. Some plants became SR 8600 and Rendition. Others moved to additional blocks.

8.1999

Rhizomatous plants selected from individual blocks of spaced tall fescue plants at Seed Research of Oregon Farm classified based on height, texture, heading date, color and origin into three blocks, one designated Grande II consisting of 17 plants, 6 from Grande, one from two cycles from Grande, three from 3 cycles from Grande leading to PRO 8430 and 7 from germplasm related to material used to develop SR 8600.

9.2000

70 progeny established of each of the 17 plants and rouged for uniformity with approximately 10% removed.

10.2001

Breeder seed of Grande II was produced, first foundation field established.

#200400292

EXHIBIT B.

'GRANDE II' TALL FESCUE NOVELTY STATEMENT

'Grande II' tall fescue most closely resembles Grande but can be distinguished from this variety by a combination of the following:

- 1) Grande II has a significantly narrower tiller leaf width 2002 and 2003 than Grande (Tables 5 and 6).
- 2) Grande II has a significantly darker green leaf color in 2002 and 2003 than Grande Table 5 and 6).

EXHIBIT C

(TALL & MEADOW FESCUES)

U.S. DEPARTMENT OF AGRICULTURE

PLANT VARIETY PROTECTION OFFICE, AMS, USDA NATIONAL AGRICULTURAL LIBRARY Bldg., Rm. 401

10301 BALTIMORE Ave. BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY TALL & MEADOW FESCUES

(Festuca spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Seed Research of Oregon	SRX 84RH00	Grande II
	1	!
ADDRESS (Street and No., or R.F.D. No., City	, State, and ZIP Code)	<u>FOR OFFICIAL USE ONLY</u> PVPO NUMBER
27630 Llewellyn Rd.		•
Corvallis, OR 97333		1 200400292 Plac
the appropriate number that describes the varieta 089). Characteristics described, including numer should be for SPACED PLANTS. Royal Hortica Characteristics marked with an asterisk * are characteristics.	rical measurements, should represent thos ultural Society or any recognized color far	s below. Use leading zeroes when necessary (e.g. te that are typical for the variety. Measured data
* 1. SPECIES: (With comparison varieties, use	varieties within the species of the applicat	tion variety)
X = F. arundinacea (Tall)	Turf Types	
1 = Kentucky 31 2 = Rebel 3 = Olympi 7 = Shortstop 8 = Silverado 9 = Rebel Ji		
	Forage Types	
20 = Kentucky 31 21 = Martin 24 = Kenhy 25 = AU Triumph	22 = Forager 23 = Mozark 26 = Fawn 27 = Cajun	
2 = F. pratensis (Meadow)		
30 = Admira $31 = Beaumont$ $32 = Comte$	ssa 33 = Ensign 34 = Trader	
* 2. CYTOLOGY:		
42 Chromosome Number		
B. ADAPTATION: (0 = Not Tested; 1 = Not Ada	apted; 2 = Adapted)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
2 Transition Zone 2 West	2_Northeast2_ Other (Specify): M	fid west
4. MATURITY: (Date First Headed, 10% of P	anicle Emergence)	
5 Maturity Class $1 = Very early ($) $5 = Bonanza$ $7 = Late (Silverado)$	2 = AU Triumph $3 = Earl8 = 9 = Very late$	ly (Fawn) 4 = K31, Kenhy 5 = Medium (Rebel)
Date Headed 128.3 Loc	cation Albany, OR	
3 Days earlier than 12		
Maturity same as 9 Comparison	Variety	
4 Days later than 1		4

Width same as

. mm wider than

Comparison variety

12

Length same as

. cm longer than

10

Comparison Variety

8. LEAF BLADE: (con	nnuea)			# 4	200400292
FLAG LEAF LENGTH	I CM:		•	FLAG LEAF WIDTH N	AM:
13.7 cm Flag Leaf Len	gth		<u>28</u> n	ım Flag Leaf Width	
22 cm shorter than	1_		·	0. 6mm narrower than	<u>.1</u>
Length same as	12	Comparison Variety		Width same as	7 Comparison variety
25cm longer than	_10_			mm wider than	
* 9. LEAF SHEATH: (I	Basal Por	tion)			
*_6_ Anthocyanin (see	edling):	1 = Absent (K31)	9 = Pro	esent()	
* 9 Auricle Hairiness	:	1 = Absent ()	9 = Pro	esent()	
* 10. PANICLE: (At see	ed maturi	ty except where noted.)			
*50 Shape: 1 = N	arrow-tap	pering () 5 =	Ovate ()	7 = Oblong ()	9 = Other (specify)
*3_7 Type: 1 = C	ompact (a	appressed) 5=	Intermediate ()	7 = Open ()	9 = Other (specify)
*6. 1 Orientation:	$1 = N_0$	odding ()	9 = Erect ()		
* 9 Branch Pubescence	: 1 = G	labrous ()	9 = Pubescent ()	
*1 Anther Color (At a	nthesis):	1 = Yellowish Green 4 = Purplish	2 = Green 5 = Reddish	3 = Bluish Green 6= Other (Specify)	
*26 Glume Color (At	anthesis)	1 = Yellowish Green 4 = Purplish	2 = Green 5 = Reddish	3 = Bluish Green 6= Other (Specify)	
*_1 9.7 cm Panicle Len	gth (from	base to tip, if nodding, st	raighten; after anthes	is)	
2. 9 cm shorter than	<u>12</u>				
Length same as	<u>10</u>	Comparison Variety	e e e e e e e e e e e e e e e e e e e		
cm longer than		·			
* 11. SEED: (With Lemn	na & Pele	ea)		<u></u>	
* <u>2910</u> mg per 1000	seeds				
337 mg less than	Wra	ngler_			
Weight same as	4	Comparison Variety			
290 mg more than	<u>10</u>				
PALEA: (Keels or Margi	ns)	Hairs: 1 = A	Absent ()	5 = Short (Missouri 96)	9 = Long ()
LEMMA:		Hairs: 1 = A	Absent (Kenhy)	5 = Several ()	9 = Many (Missouri 96)
5. 0 mm Lemma Lengtl	ı (Mature	1.5	mm Lemma width		
). 6 mm shorter than	4_		_0. 1 mm narro	ower than _1_	
Length same as	7_	Comparison Variety	Width same as	<u>8</u> Compa	rison variety
mm longer than	~~~		mm wider	than	

__ mm wider than

.__ mm longer than

12.

11. SEED: (continued)			and the second s		
*AWNS: _9_/	AWNS: $1 = Abs$	sent () 9 = Present ((Falcon)% Plants with :	awn 2 0040	0292
3. 0 mm Awn length	(Of those present.)	•			
0.3 mm Shorter than	8_				
Length same as	Compa	rison Variety			
0.2 mm Longer than	_10_				
12. DISEASE, INSECT	, AND NEMATOD	E REACTION: (0= No	t Tested 1= Least Resistant 9= Mos	t Resistant)	
Melting-out Drechs	slera poae		Blind Seed Gloeotinia temulenta		
Leaf Spot D. siccan	25'	age-consiste	Dollar Spot Lanzia, Mollerdiscus s	pp.	
Net Blotch D. dicty	oides		Stem Rust Puccinia graminis		
6.3 Brown Patch Rhizo	octonia solani	<u>6.7</u>	T. Blight Typhula incarnata		
C. Leaf Spot Cerco.	spora fectucae	<u>7.7</u>	Pythium Blight Pythium spp.		
Pink Snow Mold Go	erlachia nivalis	**************************************	Powdery Mildew Erysiphe gramini	is	
Silver Top F. tricina	ctum, F. roseum		Crown Rust Puccinia coronata		
Other Disease					
Other Insect					
Other Nematode	·				
13. ENVIRONMENTA	AL STRESS				
5 Drought Stress	1 = Susceptible () 5 = Tolerant	() 9 = Resistant ()		
Shade Stress	1 = Susceptible () 5 = Tolerant	() 9 = Resistant ()		
Winter Stress 1 = Su	sceptible ()	5 = Tolerant () 9 =	Resistant ()		
14. GIVE VARIETY OF characteristics, indicate t			ESEMBLE THE APPLICATION V g scale:	ARIETY. For the f	ollowing
1 = Application variety i	s less than comparis	on variety 2 = Same as	3 = More than, better, greater, dark	ker, etc.	
Character Rating	Varieties	Rating	Character	Vari	eties
Leaf Width	Grande	1	Leaf Color	Grande	1
Panicle Color	Grande	2	Panicle Shape	Grande	2
Seed Size	Grande	3 (Lemma width)	Cold Injury	Grande	2
Winter Color	Grande	3	Heat	Grande	2
Diceace					

^{* 15.} EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.

See attached description.

EXHIBIT D. ADDITIONAL DESCRIPTION OF THE VARIETY

'GRANDE II' TALL FESCUE

Trial Description

Data for morphological measurements were generated from a spaced planted nursery of individuals from 32 cultivars or experimental lines cultured at the Research Facility of Pickseed West, Inc. near Albany Oregon. The nursery was from individual seeds established in the fall of 2001 and transplanted into the nursery in November, 2001, with traits measured on the same plants in 2002 and 2003. Differences in measurements can be accounted for by plant maturity having a stronger influence on some cultivars than others. Treatments were arranged in a randomized complete block experimental design with three replications. Each replication for an entry was represented by 20 individuals transplanted in a single row 50 cm apart within the row. Plant nutrition consisted of 39.2 kg N/ha at transplanting and again in October 2002. Additionally 100.8 kg N/ha was split applied in the spring of 2002 and again in 2003, one half in March and the other half in April in each of the years.

(near Albany, or) 400 49

Table 1. Heading and anthesis dates for tall fescue varieties in 2002. The plants were established in the fall of 2001 with the seed of control varieties obtained from the repository at the Plant Material Center at Pullman, WA or from the breeder. Growth conditions are described under descriptive information. (\$1:3/5/2008)

		Am I - I has a sh
Variety	Heading Date Mean	Anthesis Date Mean
Southeast	118.9	151.6
Watchdog	124.0	151.7
KY-31	124.3	153.6
Shenandoah II	125.2	154.5
Falcon	125.8	154.4
Tomahawk	126.8	155.2
Crossfire II	127.1	155.7
		•
Mini-Mustang	127.3	155.6
Grande	128.0	155.0
Grande II	128.3	154.4
Rebel Jr.	128.8	154.7
Cayenne	128.9	154.9
Rebel II	1 29 .1	155.7
Dynasty	129.8	155.1
Wrangler	129.9	155.4
Bonanaza	130.0	157.1
Mustang 3	130.0	155.4
Silverado	130.0	159.0
Shortstop	130.1	156.7
Crewcut	130/1	158.6
Renegade	130.6	157.9
Bonsai	131.2	157.9
SR 8200	132.2	157.8
LSD @5%	2.4	1.5

(near Albany, 0ff)
Table 2. Heading and anthesis dates for tall fescue varieties in 2003. The plants were established in the fall of 2001 with the seed of control varieties obtained from the repository at the Plant Material Genter at Pullman, WA or from the breeder. Growth conditions are described under descriptive information.

Variety	Heading Date Mean	Anthesis Date Mean
Southeast	105.3	144.6
KY31	110.0	146.4
Falcon	112.3	148.9
Tomahawk	113.0	147.8
Watchdog	113.0	146.0
Crossfire II	115.7	150.6
Shenandoah II	116.0	149.4
Wrangler	116.3	149.9
Rebel II	117.0	150.3
Crewcut	117.3	152.4
Grande	117.7	149.7
Mini-Mustang	118.0	152.8
Grande II	119.0	150.5
Bónanázá	119.0	152.7
Cayenne	119.0	151.6
Silverado	119.0	154.2
SR 8200	120.0	151.8
Rebel Jr.	120.0	152.8
Shortstop	120.7	152.6
Renegade	121.0	153,4
Dynasty	121.3	152.5
Bonsai	121.7	153.3
Mustang III	122.0	151.8
LSD @5%	2.5	1.6

Table 3. Plant characteristics for tall fescue varieties in 2002. Plants are those used in Table 1 with growth characteristics as described. (A Dany) or)

(BT: 3/5/2008 per applicants authorization)

Plant Height at ear Internode Growth **Variety** Height (cm) Emergence (cm) Length (cm) Habit* Silverado 73.2 32.7 13.1 7.7 Wätchdog 74.1 33.8 12.3 6.4 Rebel Jr. 74.9 33.9 12.2 6.1 Cayenne 75.1 31.6 13.3 7.5 Grande II 78.6 34.2 12.8 5.9 Mini-Mustang 78.9 36.4 13.0 7.1 Crewcut 79.2 35.2 13.8 7.0 SR 8200 79.8 36.3 13.1 5.9 Shortstop 80.8 35.5 14 1 6.8 **81.3** Dynasty **3**7.1 14.5 **6.**7 Shenandoah II 81.3 35.7 13.1 7.1 Crossfire II 83.1 37.7 14.2 7.5 Mustang 3 83.4 35.6 14.4 7.2 Wrangler 85.0 41.7 16.2 6.6 Renegade 85.2 41.1 15.6 6.7 Grande 86.1 40.2 15.8 5.8 Bonanaza 86.8 41.0 15.1 6.8 Tomahawk 87.1 40.5 16.2 6.8 Bensai 88.2 43.3 15.7 7.0 Rebel II 91.2 43.2 16.8 6.3 Falcon 98.6 47.1 20.2 5.8 KY-31 59.1 108.9 21.3 5.2 Southeast 110.5 56.2 20.8 5.4 LSD@5% 8.1 5.0 2.5 1.0

^{*} Growth Habit - 1 = prostrate, 3 = semi-prostrate, 5 = horizontal, 7 = semi-erect, 9 = erect

Table 4. Plant characteristics for tall fescue varieties in 2003. Plants are those used in Table 2 with growth characteristics as described. (**15213/5/2008)

Variety	Plant <u>Height (cm)</u>	Height at ear Emergence (cm)	Internode <u>Length (cm)</u>	Growth <u>Habit*</u>
Cayenne	101.0	61.2	25.9	8.7
Wätchdog	105.3	61.7	25.7	8.4
Shenandoah II	108.2	59.9	25.9	8.8
Mini-Mustang	109.9	65.8	25.4	8.9
Crossfire II	112.4	6 5 .1	24.0	8.8
Shortstop	114.6	73.5	26.1	8.8
Dynasty	115.1	72.2	26.4	8.8
Mustang 3	115.6	71.0	26.1	8.9
Grande II	116.1	71.5	25.4	8. 9
Wrangler	116.4	72.7	<u> 2</u> 2.9	8.1
Silverado	116.6	73.4	26.9	8.7
Rebel Jr.	117.6	70.3	26.6	8.8
Tomahawk	120.2	68.3	27.6	8.7
Bonsai	122.3	75.4	27.7	8.9
Renegade	123.4	79.2	27.7	8.7
Crewcut	124.3	74.3	27.4	8.7
Bònànàzà	130.2	79.2	26.4	8.5
SR 8200	133.0	81.3	26.5	9.0
Grande	133.4	81.9	28.7	8.8
Rebel II	139.7	89.0	28.1	8.7
Falcon	140.9	92.2	25.7	7 .ố
KY-31	144.9	94.7	27.9	7.0
Southeast	147.5	93.3	27.3	7.0
LSD@5%	14.2	11.7	4.0	0.4

^{*} Growth Habit - 1 = prostrate, 3 = semi-prostrate, 5 = horizontal, 7 = semi-erect, 9 = erect

Table 5. Leaf characteristics of tall fescue varieties in 2002 near Albany, OR. The plants are those described in Table 1. The flag leaves were measured on the reproductive tillers utilized in Table 3. The tiller leaf was measured as the last fully expanded leaf on vegetative tillers on the same plants as described in Table 1.

Variety	Length (cm)	Width (mm)	Length (cm)	Width (mm)	Color ¹	Texture ²
Watchdog	9.73	2.65	13.30	3.60	4	ŗ.
Dynasty	10.33	2.48	14.43	3,63	5.0	4 6
Cayenne	10.74	2.93	13.22	3.07	ເດ	40
Crewcut	11.17	2.72	14.61	3.48	4.	4
Mini-Mustang	11.45	2.62	16.45	3.60	5.0	4,
Crossfire II	11.51	2.87	16.72	3.56	ιυ œ	3.7
Shenandoah II	11.67	2.95	15.29	3.52	ស្ន	4.2
Mustang 3	11.79	2.87	15.59	3.75	G	4
Shortstop	12.07	2.82	17.17	3.43	4.8	4.7
Silverado	12.41	3.05	16.15	3.98	4.2	4.8
Tomahawk	13,19	2.98	17.52	3.63	9 4	<u>ග</u>
Wrangler	13.45	3.07	17.12	3.97	2.8	ю 4
Bonsai	13.65	2.93	17.54	3.83	57.	4.7
Grande II	13.69	2.82	16.24	3.28	5.8	4.1
Rebel Jr.	13.81	3.18	17.16	3,40	4.4	4,0
Renegade	13.88	3.23	18.71	4.25	4.5	දු
Grande	13.91	2.93	18.96	4,15	4.1	89
SR 8200	14.21	3.32	18.16	3.88	4.2	3.7
Rebel II	15.28	3.02	20.61	4.32	4.2	60
Bonanza	15.30	3.27	20.50	3.95	3.7	3.2
KY-31	15.93	3.42	21.27	4.92		0.1
Falcon	15.99	3.00	20.28	4.02	29	9
Southeast	16.74	3.40	21.84	4.60	1.9	1,0
LSD@5%	2.19	0.57	2.21	0.65	Ат. Д.	9.0
	-					

Color¹ - Foliage color 1 to 9 scale where 1 = light greeen and 9 = very dark green

Texture² - Leaf blade width on a 1 to 9 scale where 1 = very course and 9 = very fine

Table 6. Leaf characteristics of tall fescue varieties in 2003 near Albany, OR. The plants are those described in Table 1. The flag leaves were measured on the reproductive tiliers utilized in Table 4. The tiller leaf was measured as the last fully expanded leaf on vegetative tillers on the same

	Ro.	riag Lear	Tiller Leaf	3	Tiller Leaf
Variety	Length (cm)	Width (mm)	Length (cm)	Width (mm)	Color1
Watchdog	15.17	3.74	22.24	4 63	α
Dynasty	16.55	3.72	25.06	4 69	i Fur
Cayenne	16.68	3.75	24.78	431) u
Shenandoah II	17.37	3.94	26.31	47.4	t o
Mustang 3	18.15	3.66	22.71	4. 66	יי ני
Wrangler	18.25	4.02	23.13	46.54	- et
Mini-Mustang	19.02	3.82	25.95	4 5.5 80), A
Crossfire II	19.05	4.09	26.78	4.70	÷u
Shortstop	19.05	3.87	24.92	4 63	, d
Crewcut	19.17	4.26	24.32	4 5 5) K
SR 8200	19.81	4.68	24.75	5.71	j 4
Grande II	20.06	3.96	25.89	4.77	i ec
Tomahawk	20.11	4.41	25.02	5.01	20.0
Bonsai	20.16	4.79	27.66	5.44	0 4
Falcon	20.44	4.58	28.50	5.67	
Rebel Jr.	20.56	4.01	26.86	4.88	. V
Grande	20.73	4.84	28.29	5.53) O
Renegade	21.53	4.13	29.72	200	o C
Southeast	21.75	5.03	29.17	10 10 10) T
Silverado	22.24	4.18	27.25	4.82	. 4
Bonanza	22.78	5.15	28.82	5.94	. 4
Rebel II	23.12	4.92	30.94	5.48	. 7
KY-31	23.17	4.93	29.64	5.85	<u>.</u>
SD@5%	000	0.43	L C	f	•

Color 1 - Foliage color 1 to 9 scale where 1 = light greeen and 9 = very dark green

collected from the plants in the PVP nursery at seed maturity and placed in envelopes for later analysis. Seed measurements were performed on a fully formed viable seed from the bottom third of the panicle. Plants and growing conditions are as described in Table 1. Panicles were (AL) (AL) Table 7. Panicle and seed characteristics of tall fescue varieties in 2002.

1																								,	
Seed Weight (mg/1000 seeds)	2680	2593	2927	2693	2833	2620	2910	2747	2707	3247	2720	2817	3013	2930	2783	2623	2837	2853	3190	2877	2990	3300	2867	283	
Panicle Orientation	7.8	က်	5.7	, r	6.1	4	T	5.4	5.7	20.2	4	4	3.5	5.7	ີ້. ດີນີ້	2.7	6.4	5.3	9.7	<u>t,</u>	3,4	1.0	1.0	4.	
Panicle Type	် တ က	+ -	4.2	5.5	3.0	4-	3.7.€	2.8	හ. ව	3.6	9.0	6.4	3.5	5.2	4.4	3.4	4.5	3.4	0.4	3.7	4.6	3.5	3.4	7.1.	
Panicle Shape	ro Ol	4.8	5.3	0.0	0.0	5.1	5.0	5.2	5.8	4.9	5.0	6.1	0.0	6.3	6.2	5.4	5.3	5.2	6.4	4.7	0.9	5.7	5.3	1.2	
Panicle Length(cm)	16.04	17.54	17.76	16.52	19.30	19.48	19.71	20.04	20.30	20.33	20.61	21.10	21.31	21.47	21.55	21.62	22.12	22.60	23.25	24.08	24.47	27.72	27.88	2.09	
Variety	Cayenne	Watchdog	Dynasty	Silverado	Mustang 3	Mini-Mustang	Grande II	Crewcut	Shortstop	Wrangler	Shenandoah II	Tomahawk	Crossfire II	SR 8200	Rebel Jr.	Grande	Renegade	Bonsai	Rebel II	Falcon	Bonanza	Kentucky 31	Southeast	LSD@ 5%	

Panicle Type - 1 = compact (appressed), 5 = intermediate, 7 = open, 9 = other. Panicle Orientation - 1 = nodding, 5 = middle, 9 = erect. Panicle Shape - 1 = narrow tapering 5 = ovate, 7 = oblong, 9 = other

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		Lemma	Glume Color
Variety	Length(mm)	10 seed width(mm)	at anthesis
		i	
Cayenne	5.69	14.43	2.2
Watchdog	2.67	14.26	88
Dynasty	2.82 2.82	15.06	000
Silverado	5.95	14.90	2.7
Mustang 3	5.86	15.23	27
Mini-Mustang	6.29	15.19	် လ လ
Grande II	5.96	14.91	2.6
Crewcut	6.39	14.89	25
Shortstop	5.98	14.58	27
Wrangler	6.17	16.69	8.2
Shenandoah II	5.86	14.65	2.6
Tomahawk	6.01	14.91	 1.00
Crossfire II	6.35	15.40	8,4
SR 8200	631	14.86	26
Rebel Jr.	5.74	14.89	o Ci
Grande	6.39	15.07	2.7
Renegade	5,74	14.86	20.00
Bonsaí	6 4 5	15.59	, , , ,
Rebel II	6.25	15.73	3.1
Falcon	6.33	15.35	2.6
Bonanza	6.57	15.40	2.6
Kentucky 31	6,93	16.12	2.2
Southeast	80:9	15.60	23

Glume color (at anthesis) 1 = Yellowish Green, 2 = Green, 3 = Bluish Green, 4 = Purplish, 5 = Reddish, 6= Other (Specify)

200400202

collected from the plants in the PVP nursery at seed maturity and placed in envelopes for later analysis. Seed measurements were performed on a fully (Albany, DR)
Table: 8. Panicle and seed characteristics of tall fescue varieties in 2003. Plants and growing conditions are as described in Table 2. Panicles were formed viable seed from the bottom third of the panicle. Awn length was measured on 60 seeds with awns from each cultivar.

	Panicle	Panicle	Donicio	000	Sec. of Mindelland
Variety	Length(cm)	Shape	Type	Orientation	(mg/1000seeds)
Sayenné	24.07	5.5	9	3.7	2270
Watchdog	26.95	5.2	4.5	41	4690
Dynasty	27.15	4.4	6	, c	2357
Mustang 3	27.52	بري 1	o e) cr i «c	2003
Wrangler	27,99	රි	20). A	2002
Mini-Mustang	28.35	8.63	4 6) 4	7:106
Crossfire II	28.93	57.0	40	- œ	2540
Shortstop	29.10	, 33	4.7	10	2337
Shenandoah II	29.58	5.7	6.4	0.4	2347
Grande II	29.68	4,9	် (၁)	0	2267
Fomahawk	30.43	5.6	4	က်	2437
Silverado	30.56	5.6	51	0.0	2283
Renegade	30.92	5.7	4.2	7,3	2460
3onsai	31.01	0.9	4.2	80	2270
Rebel Jr.	31.58	50	50.0	7 4	2500
Crewcut	32.71	5,3	0.4	<u>4</u> ئ	2140
SR 8200	33.22	5.1	9.0	67	2203
Grande	33.38	4.9	4.2	0,4	2157
Falcon	34.23	5.0	4.5	9.	2183
Bonanza	36.34	4.0	4.5	ထ	2497
Rebel II	36.50	6.1	ທີ່	6	2203
Southeast	36.84	55.00	Q. 4.	ි ග	2363
Kentucky 31	37.81	7.0	5.0	7.4	2327
: \$			š,		
SD@ 5%	3.23	1.3	က	4.60	459

Panicle Shape - 1 = narrow tapering, 5 = ovate, 7 = oblong, 9 = other.
Panicle Type - 1 = compact (appressed), 5 = intermediate, 7 = open, 9 = other.
Panicle Orientation - 1 = nodding, 5 = míddle, 9 = erect.

	Lemma	% Branch	Awn
Length(mm)	10 seed width(mm)	Pubescence	Length(mm)
6.26	15.03	7.8	2.16
6.15	15.12	9.0	2.44
6.28	15.01	7.8	2.22
6.19	14.44	တ	2.82
6.38	14.52	000	3.18
6.42	15.71	0.0 6	2.68
6.33	14.42	ි O 6	2.76
6.29	14.09	് യ	2.51
6.19	14.89	0.6	2.51
6.06	14.60	8.7	2.63
5.99	15.65	0.06	2.71
5.82	15.39	8.3	2.57
6.08	14.84	7.8	2.24
6.25	15.18	0.0 6	2.24
5.83	14.98	7.1	2.63
6.68	15.07	ି ଅଧି	2.76
% 20.02 10.02	14.83	œ T	2.67
6.50	15.30	œ. —	2.39
6.58	15.02	တ	2.79
6.39	14.73	φ	2.80
6.77	14.58	06	2.55
6.60	15.35	0.6	3.28
7.06	15.80	9.06	3.03
. 7	4 47		· · · · · · · · · · · · · · · · · · ·

Panicle branch pubescence - 1 = glabrous, 9 = pubescent

Table 9. Morphological traits of tall fescue cultivars measured 2003-2004 from greenhouse measurements at the research facility of Pickseed West, Inc., Albany, OR.

Line	1	2	3	4	5	6
Bonanza	5	1	5	2	6	8
Bonsai	5	1	5	2	8	8
Grande	3	1	5	2	7	7
Grande II	5	1	5	2	6	9
Kentucky 31	1	1	9	6	9	9
LTP-7801	6	1	4	3	5	8
Silverado	5	1	6	3	6	8

^{1 =} Leaf blade - width class (1 = very coarse, 3 = coarse, 5 = medium, 7 = fine, 9 = very fine)

 $^{2 = \}text{Leaf blade} - \text{anthocyanin} (1 = \text{absent}, 9 = \text{present})$

 $^{3 = \}text{Leaf blade - basal hairs } (1 = \text{absent}, 9 = \text{present})$

 $^{4 = \}text{Leaf blade - margins } (1 = \text{absent}, 5 = \text{semi-rough}, 9 = \text{rough})$

^{5 =} Leaf sheath - anthocyanin (seedling) (basal portion) (1 = absent, 9 = present)

^{6 =} Leaf blade - auricle hairiness (basal portion) (1 = absent, 9 = present)

CULTIVARS	
FESCUE	
TALL	
6	
RATING9	-
TEMPERATURE)	2002 DATA
(WAR	
PATCH	
おおの後に	
<u>.</u>	

		į	•	;			# F F F
KV-31 E+	8.0	5.3	6.7	7.0	5.8	0	7.7
TITANIUM (SSB)	7.0	6.3	0.9	9.0	7.7		7.6
PST-SKI	60.00	5.7	8.3	7.7	8	6,0	7.4
PST-5512	7.3	5.7	6.9	7.0	6.4	7.7	
CAYENNE	7.0	6.0	8.3	7.7	7.7	7.7	7.4
BUSTANG 3	7.0	5.7	6.3	7.7	7.7	8,0	
PST-541	φ, -,1	4.3	7.7	7.7	8.0	8.0	7,
BAR FA 1003	7.3	4.7	8.0	7.3	e.	8	*
	7.00	4.7	6.0	7.0	6.3	6.3	7.3
SOUTHERN CHOICE II	۲.	6.0	8.0	6.7	4.3	6.0	7.3
	7.3	5 7	٥.٧	7 3	6	6	7.3
FORTE (86-2)	6,8	6.3	8.7	6.0	6.0	6	7.3
JT-6	7.7	6	7.3	7 0	7.3	6.9	
BOSESTS 454	e.	4.7	8.7	6.7	4,4	φ.	1
RENDITION	7.7	4.0	6.3	4.7	6	6,	۲.
01-0801	6.9	6.3	8.0	6.3	£.	æ	7,
杨文七七年经刊文材料	8.0	4.7	7.7	6.7	9,0	4.4	7
	7.0	5.0	9.0	7.0	6	8.0	
(PST-5ASR)	7.0	5.0	B.3	6,7	0,0	4,4	۲.
GUARDIAN-21 (HOBERTS DOL)	6,7	6.0	8.7	7.0	7.0	8.0	7.
PICASSO	0 8 0	5.0	6.0	7.0	7.3	8.0	<u>.</u>
PST-5J#	7.7	4.7	7,7	7,0	6	£.3	*
BILTMORE	, ,	5.0	6.7	7.0	60	4.7	~
C18-TF-77	0.0	0.9	9.0	7.0	9.9	8.0	<u>.</u>
DOSKALOM	7.0	4 0	8.7	er er	6	6.	7.2
80-804	7.7	4.7	8.7	4	٠ <u>+</u>	9.0	*
	B . 7	4	9.0	4.7	4.0	Ø.	7.2
MAGELLAM (DD-4)	69,74	4.3	. d	7.3	Ð.	9.0	7.2
SIGNIA	7.7	3.7	 	4.7	e 6,	9.0	7.2
NA-TDO	9.0	5.0	7.3	7.0	7.0	8.7	۲.
TAR HEEL II (PST-5T81)	7,0	4.3	7.0	7.7	6.0	€,4	7
G18-1F-67	æ.	9,0	8.0	6.7	8,0	7.7	۲.
OLYMPIC GOLD	7,0	4.3	8.0	4.	8.3	7.7	7.1
AEBEL EXEDA	4.3	4.3	8.0	7.0	8.0	8. 0.	7.1
REMBRANDT	₩. •	6.	4.3	7.7	7.7	8.0	7.1
TAR REEL	٠, د.	4.3	8,0	6.7	9.0	ф 63	7.1
#61	7.7	4.7	6.3	6.3	7.3	8.0	~
KO1-WAF	9.0	4.7	7.7	7 0	7.0	9.0	7.1
PLANTATION	7:7	3.7	8.0	6.7	60	8,0	7
PROSEEDS 5301	7.7	ຄ	0.8	6.7	6,3	6.0	7.1
PROSPECT	6,7	3.3	6,3	7.3	8,7	8.0	7
PST-SLO	\$	5.3	7.7	4.7	9,0	P.	7.7
1766	7.3	4.7	6.0	6	7.3	6.9	

TABLE (CONT. D) BROWN PATCH (WARN TEMPERATURE) RATINGS OF TALL FESCUE CULTIVARS (CONT.D)	TEMPERATU	RE) RATIN 2002 DATA	08 OF T	ALL FESC	VE CULTI	IVARS 1	,
BROWN	PATON BA	BROWN PATCH SATINGS 1-9]		9=NO DISEASE	12		
MA#E	ART	11.2	tx1	0K1	VA1	#14	MEAN
ATF 799	47	7.0	9	6.0	0,7	6	7.0
GO-SIU2	7.0	ъ.		8	7.0	60	7.0
MASTERPIECE	7.7	5.7	7.0	7.0	7.3	7.3	7.0
ATF-800	7.7	4.7	9.0	2.0	6.0	8.7	7.0
CAS-RC1	7.0	4.7	7.3	7.8	7.7	8.3	7.0
DLF-J210	7,0	4.7	8.7	7.0	6.7	8,0	4,0
OREMLIN (P-58)	0,0	6.4	8.0	4,0	e3	8.3	7.0
	6.7	es O	7.7	6.7	8.0	9.0	7.0
RAPTOR (CIS-TF-33)	7.0	φ,	9,0	7.0	7.7	8.0	7.0
PST-53T	0.0	6	7.3	7.0	6.0	4.8	7.0
O1-HUTCH2	9,0	<u>ه</u>	e.	8	8.0	9.0	6.9
	7.0	4.7	7.7	7.0	7.0	10	9
COCRISE III (018)	6.0	9	7.7	6.7	9.0	6	6.9
KO1-8015	e	#·#	7.3	4	4	e,	8
KALAHARI	. J	5.7	8.0	6.3	7:7	æ 19	6.9
PAORE (NJ4)	6.7	5.7	es es	6 ,3	6	6.3	6,9
BAR FA 1087	7.3	0,0	4.9	e,	¢.	6	9.0
BARESA	 	e.	7.7	7.3	7.7	6.6	6.9
FOCUS	9 9	φ :		6.3	7.7	0.0	o, o
	٠.٠ ۲.٥	φ. 	4.3	6.7	7.3	9,0	6.9
WAT - 107 A 00	es :	æ ·	œ :	9	e.	0,0	ф Ф
	0 1	4	e .	φ i	7.7	0	æ.
BLACKWAICH (PICK-003-01)	, i	4. ·	ر دن ا	4.0	eo 1	œ :	9
		d .	- 1	r (7.7	0	ф.
	2 0	· I		F 1	0 :	æ .	ф. С
71 20012	9 6	4 4	n 1	. :	۰, د نو	e •	o (
A DESCRIPTION OF	2 4		: :		o (÷ 4	ф (
			, t	,	÷ †	9 4	
AFA	9 5	9 4		o		9 1	
BINGO	7.0	4	9	7.0	. 6.	. 0	9
FALCON IV (F-4)	6.0	4.3	8.0	7.0	8	0	6.9
2ND HILLENHIUM	6.3	4.7	7.0	8.7	8.0	6,0	9
INFERNO (JT-99)	6.7	4.0	7.3	6.7	6.9	8.0	6.8
PST-5FZB	6.0	4,0	7.3	7.0	6,8	€.	6.8
TITAM LTD.	8.0	4.3	7.3	6.3	7.7	7.3	6.8
UT-883	9.0	4.0	7.7	7.7	7.0	. d	6.8
PST-57E	5.0	2,7	8.0	6.7	7.3	8.0	6.8
PST-SKU	6.7	4.0	7.0	6.7	8.0	6.9	8.9
	6.	ه. ن	7,7	6.7	٠,	۲.	Ø.
SOUTH PAW (MRF 24)	а С.		7.7	6.7	7,3	æ.	49
ATF 704	6.0	٠. دم	0.8	6.3	6.7	8. 0.	e G
B-7001	7.7	6.4		9		æ	8.8
BAR FA 1005	9.0	4 .	0	7.0	0 1	ا ما دي ا	
BARLEXAS	6.0	6.4	œ,	æ.7	7:7	7.7	8,8

TABLE (C): BROWH PATCH (WARM TEMPERATURE) RATINGS OF TALL FESCUE CULTIVARS (CONT'D)	TERPERATO	RE) RATIN 2002 DATA	408 OF T	4LL FESCI	IE CULT3	VARS 1/	
NO NO	BROWN PATCH RATINGS 1-9;	TINGS 1-:		8=NO DISEASE	18		
HAME	A81	11.2	## 1	9K1	YA1	¥11	対の資料
CAS-ED	7.3	5.0	7.3	8	ē,	65	40
COYOTE	7.0	3.7	7.3	7.0	7.0	7.6	8,8
上 在 3 d 3 d 3 d 3 d 3 d 3 d 3 d 3 d 3 d 3	7.7	3.3	8.0	7.0	4.9	9.0	8,
KO1-E03	4,7	5.0	8.7	6.0	45.49	7.7	4.7
XO1.E09	κή (0.0	0 : 8	6.7	7.7	8.0	6.7
0 T O T O T O T O T O T O T O T O T O T	, r	(n) (2,4	7.0	e i	ф (6.7
	- t-	, c	. e	, o , v	0.4	دة و دة و	• •
WATCHDOG	8.0	9 6		9. 1	2 1-	9 69	
018-TF-65	6.9	7.0		6	8,0	6	
CONSTITUTION (ATF-593)	8.0	4.0	7.3	7.6	7.3	8.7	
#A 127	6,1	5.3	7.0	6.3	7.0	9.0	6.7
	7.0	3.7	4.3	6	6.0	7.7	6.7
	e (හ :	e .	6 ,7	8.0	4.7	
DATIONA (MAT AS)	D	4 1	œ ;	e 1	6 1	43 4	i- i • •
WATT		9 6		2 6		÷ •	
AVENGER (L1Z)	8		7.7	.	. 0	. 0	. 6
GRANDE II	8.7	4.7	7.7	6.7	9.0	0,6	
JT-18	6.7	3.3	7.7	6.7	7.0	8.3	6.6
01-17083	7.3	4.0	7.8	6.3	7.0	8	9.9
	O. 1	4.3	7.3	6	7.0	8	8.6
MATADOR	K 1	4,1	e	e :	7.3	7.7	6.6
	9 0		9 0	, d	٠, د د	دن دن ا	
BRAVO	9	, ,	» r.	- 1-	, A		p 4
PICK ZHQ	7.3	2.7	7.3	4	7,0		
	7.7	5.0	7.7	7	e.	ø.	9
TULSA II (ATF 706)	e e	4.3	÷.	0.0	e,	æ.	9
REGEL SENIAY	e e	0 1	6.0	6	8	t- 1	
TOWARAWK BT	0 F	, ,			13 e	/* 0	9 0
		. 6	. 45		7.0	. 4	9 60
ATF 702	6,7	9,0	4.3	5.7	6.0	φ.	8,0
	g. 3	4.0	7.0	6,7	7.7	6.0	6,5
TAROE (CAS-157)	W (4.0	7.3	10.	7.7	* -	9
21-12	1 .0	e :	0	φ :	.	æ.	υη Φ
100 T 4 T	2.9		o .	.	9	.	u) u)
AN TARE	n 1	m •	0 1	.	. ·	7.7	
23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	- 4	.			a a		o •
601.04) IV	2 6		- 1-	2 6	9 00	* 4
M 77 26	7.7	6.6	7.0	6.9	4.4	7.7	6
	80 67	υ, (*)	7.3	5.7	4.7	8.0	4.
ATF 806	Ø.	4.7	6.1	0.0	8,3	7.7	6.4

TABLE (O B

BROWN PATCH (WARM TEMPERATURE) RATHMGS OF TALL FESCUE CULTIVARS 1/ 2002 DATA

BROWN PATCH HATINGS 1-8; 8-NO DISEASE 2/

257	ART	717	# #	E¥0	¥ ¥	#II	T V
EA 163	7.0	0,	7.0	9	5	7.8	4
新九千 28	7.0	3.0	7.7	7.0	6.	6	4,
DP 50.9226	5.0	3.7	. 0	7.3	6.0	es es	4.8
KITTY HAWK 2000	6.0	4.0	6	7,0	7.0	7.7	9
LEGITZWATE	7.3	4	7.0	6.7	5,0	9.0	**
PST-58Z	6.9	6,0	6.7	4.4	7.3	8.0	4,4
ATF 707	8.0	е. С.	7.7	6.0	0,8	8.0	ф
LANCER	P. 60	0	7.0	7.3	to to	7.7	6.3
PURE GOLD	7.0	6,6	8.0	9.0	8.0	7.3	10
30.F13	5.7	7.0	8.3	7.0	5.5	7.7	10
MRF 210	7.0	0.0	7.3	7.0	6.9	9	9
SRX 805	e, e	4.0	8	8	6.0	7.7	10
JT-13	6.7	4.0	4.0	9	0.	6.3	49
11 11 11 11 11 11 11 11 11 11 11 11 11	en en	4.0	7.0	6.3	6.7	7.7	49
ELISA	6.7	3.3	7.0	5.0	7.3	7.7	•
K01-8007	6.0	ω,	4.7	7.0	4.7	60	40
SR &550 (SRX &BE4)	en មា	4.7	7.3	6.3	4.4	6	*
PICK TF N.97	4.7	3.0	7.7	6.3	7.0	7.7	9
COVENANT (ATF 802)	tr tr	£.	7,0	7.0	e.	0.0	10
MRF 29	e) 10	3.0	6.	6.7	4.7	8.0	6.9
聚合作 公工1	to.	5,7	8.0	6.0	4.0	8,0	en.
PST-00L	1.0	4.0	6.9	9.0	r. m	9.0	en,
JTTFF.2000	4.0	4	+ 4	6,3	6.7	7.3	un
BONSAI	1. 10	6	7.0	4.0	6.0	6.7	10
C18-1F-64	5,0	43	5.7	6.0	4.7	7.3	n)
OP 50-9082	4.0	(N	6.7	69	4.7	7.7	10 64
LSD VALUE	ы 67	6,	÷.	1.6	4	6.	÷.
6. V. (%)	31.3	4	1.0	44.	* **	4	,

TO DETERMINE STATISTICAL DIFFERENCES ANONG ENTRIES, SUBIRACY ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSO 0.05).

!/ C.Y. (CORFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE REAN IN EACH COLUMN.

BROWN PATCH (MARM TEMPERATURE) RATINGS OF TALL FE

	BROWN PATCH RATINGS 1-9;	ratings		9=HO DISERSE	28.5E 27				
NAME	24H.)	621	11.2	HA1	300	NIZ	114	F & 1	MEAN
数据证据: 四条数记录		ć	•	,	- ,	. •			
		. 4			i di	5.3	202		
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- 4	20,1	ro Sp	ار. در		<i>د.</i> س	0	-	C.	7 7
END PARACE.	2	ro to	·	o,	E	L . U		£.	يند. مع
OLYMPIC GOLD	9	1-	e, 3	en M	6.3	5	2	٠,	
TAR HEEL		۳.	0	0.0	6.3	5	100	-	-
PST-5512	1-, 00	0.8	5.	n) KL	v	e e	. 0		
TAR MEEL II (PST-5TRI)	0.3	0.9	TC.			44	מו כ		
PST-5KI	0. 2	5.5	151		, n				
TITAMICM (SBM)	7.0	6.3	2	(C)			3 0	. 0	5 c
DOMINION	0.8	'n	ę,	(C)			. t.	•	
WOLFFACK	m.	6.7	m an				· 0	•	. ~
COCRISE III (018)		. 9	r.	- C			י י	•	
MAGELLAN (OD-4)	8	10		· "					n (
1 K	7.3	75				. 45		> <	2 (
MUSIANG 3	7.7				, t.	ı r			a c
REMBRANDE	-1-3	9		•	, t.	, c	<i>></i> 0	3 6	9 (
ANT 3000	m w	٠.		, ,		? .		.	2 (
PROSEECT	7.7	, e		,	. n		% e	•	
PICK XMS	. 64			÷ 1	, r	2 1		.	
TO TO SEE MOLES	5 1				n :	er i	-		(C)
	> t	~ (2	0	6.0	c,	7	m	89
ACCES (ALC LANGERS DOS)	n. 1	n i		7.0	ι, ·	5.	సఫ	6	6.8
1	100	ر د د	9	o.		۲. د-	۲-	۲:	(O)
ኅ	1 1	m w	6.3	7.7	ກ	~\ V)	95	cu.	6.7
	1.	6.3	ر. د	7.0	ē. 3	6,3	63	÷.	6.7
(FEE-254)	٦.٥	rs av	0,0	,	5,3	es es	80	m.	6.7
REGIMENT II (SRX 805)	6	ر د .	3.0		νi ε	4.0	ŀ-	3,5	
CAYBRIDE	7.3	, ,	5.7	en eu	. n	4	6	,	6.7
AND MILLEMMION	8.3	٥.٦	6.0	5.7	6,13	m m	()	٣.	6,1
COSTICE (MRS-01)		۲-	п.} г.–	m 10	5.3	6,3	7	en;	8.7
0000-000	c.	₩.	5.7	ار د -	6.0	-	(C)	(F)	5.7
APACHE III (PET-5A1)	7.7	ē, ē	, d	50	ω. Γ'	e,	85)	G.	1
00583	B.0	7.0	ζ.,	o,	w w	5.0	7	ί,	4
KASTERPIECE	m	5,0	0.0	in w	ri)	5.0	7-	es	9
PLANTATION	e.	٤٠)	ις.	7.7	m m	en en	r*-	f ~	40
ひなけ しいかび	7.0	6.0	6,3	6.7	7.0	z,	273	۳,	8
SILVERGIAR (FGT-SASK)	6.3		ŝ	0.0	φ. 1.	45	90	m	9
FINELARY ELITE (DISC)	7.9	6.0	ין יין	0.0	m vo	6.7	63	er;	
CAGDAR 3	7.3	6.3	ري س	e9	0.	5,0	٠.	6.	40
	7.0	en 161	ъ.	0.6	ες ες	43,	80	۲,	9
(B1-RUTOR2)	7.0	6.3	0,0	6.0	0.0	3	7		10
RIVERSIDE (PROSEEDS 5301)	3,0	0.3		т. П	6.7	4.3	1-	ο.	e Z
C18-11-77	6.7	£.	ه. ن	E)	17	'n	œ	٥.	6,5
G0~0D2	8.0	0.0	ري س	6,7	7.0	ιn en	*	₽٦	ć,

TABLE (CONT.D)	(WARM DEMPERATURE)	ATURE) 2003	RE) RAPINGS 2003 DATA	OF TALL	ancesa	OP TALL PESCUE CULTIVARS	17	
	вкоми ратен	RATING	Ratings 1-9;	9-WO DISERSE	/2 ESE			
пане	ARI	GA1	11.2	MAI	na:	NJ2	AL CA	MEA
KO1-WAF	7.7	6.0	it.	0.0	4.7	17	£.	4)
GO-RD4	2.3	. 1		7.3	6,0	۳.	0.0	45
52-15	0.0	e.	6.1	ຫຼຸ່ນ	6.0	4.0	₹- (~	w
		.3		5.0	5.0	ار. - ته	r- (-	9
EAR ER 1005	٠.	ر. د.		m)	a)	6.3	ф.	w
DANIMAKAN Sasangos ya casa nasas		رة ا د ً ا		ص. و. ا	7.4	L.	(P)	9
RAR FR 1603	. i	- r	n r	- 0	m r	ng r mj	٠. ١	
DYNAMIC (PET-57E)	- 42		. n.		~ 1-	, te	- t	2 4
SOUTHERN CHOICE II	(C)				t.	i m		o er
FIVE POINT (MCN-RC)	-	m 19	5.7	•	. sa	4	0	49
MILLERNIUM	m as	٠. م.	7.0	. j~	່ທ້	2.7		ų,
0535014	1.	0,3	 	j.,	G	5.0	m)	g
SCORPION		۵. ۲		Ф.	ις. Υ	3.7	in.	10
٠,	•	0		ιη Γ	o.	4.3	۲۰ دی	w
GINGA A (ARKINGU)	m e	۵ ر د آ	က က (Q I	(C)	w :	•	و
INFERRO (FOLDS)	9 0		n te	~ p	re c		ns e	(g. t
工设在	0,0	, r.		7.		, n		v
	7.0	6.0	65	m,	5.0	m.		ψ
DAVINCI (LTP-7801)	5.3	ю. Р*		ນຸ້ນ	හ <u>ා</u> හා	-ge		w
FEMDITION	1~ 11	٠.	⇔.	7.7	មា	G. G		Ψ
TROOPER (01-INGES)		en .		9.0	5,3	5 5	7.0	φ
FALCON IV (#+4)	, , o ,	10° c	(° (د. د.	er• •	in i		٠
7.0000 P10K100-a99		,	5 r	o c	ž. «	7 .	⊃ f	
FORTE (BE-2)					7 77	יי	• .	0 4
SR 8250	٠.3			, r)		4		
in the second se	۲- ۲-	7.0	u)	۲. ۲	5,0	6.3		ω
STONENALL (JT-18)		٠,	5.0	0.0	5,0	e.	۳.	v
B-7001	en 6	m, c		ns (10 t	m i	7.0	w
RIADE RUMNER (RORDER CHA)	3 r	o n d L	n e		တွင် ကိုဗ	m t	٠. ر س د	ψ (
					; r		. 4	
GREMLIM (F-58)	, m,	. eq	, en	0.0		- 1~		15
NYART	7.3			0.0	E.	(1)		ų,
TEMPEST	62) 64)	0.0		£. 30	0.5	W		101
WATCHDOS	5.1	an L		r- r-		7	179	151
E3 163			en en	5.5	₩.	E 13	C.	છ
KALAHARI	m 1	e, .	en e	en e	r) (m in	r- 1	v
STATE OF STA	r. «	•	ت د د	es :	no s	ت	r- 1	19
TUTE OF THE PARTY	⊃ F*	n ∈ n ∈	 	en L យ៉ាក	n) a	-21 -4 1-12 -13	L- 1	4
SK 5550 (SRX 8BE4)	7.3	ب • • • • ا •	.0.9	- m	4 eli			a 10

77	
BROWN PATCH (WARM TEMPERATURE) RATINGS OF TALL PROCUE CULTIVARS 1/2009 DATA	
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TNGS	ě
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ATURE) RATING 2003 DATA	A TOTAL TOTAL CONTACTOR TOTAL STOCKS
TEMPSH TEMPSH	6
(мави	22000
ратсн	
BRONN	
TABLE	

	BROWN PATCH RATINGS 1-9;	Ratinos	9	9-NO DISERSE	ERSE 2/				
anen	381	GA1	11.2	MA1	10 to	N 72	15.0	NEZM	
ATF 704	7.7	6.1	107	ę.	5.1	42. [4]	70 10	6	
Barrera	6.7	.0	eri un	0.3	10	প		10	
PST-SEAS	7.0	6.3		7.0	, q		- 49		
UT-185	e, 3	6.0	5.7	0.8	6,7	(M)	1 10		
异联 易后移动	7.3	6.3	rs นา	ţ	· 177	41		2.5	
STRISON	7.0	٠. د.	4.7	7.7	M	1.		1 (4)	
UT-RB3	3.3	0.3	5,7	n	r. 10	1	1.	8	
Berringion	ens Em	8.3		5.3	e;	7.6	0	9	
CA6-ED	0.	5,1	ny (n)		ت ب	1-		. 49	
FALCON II	7.0	0.0	5.7	8.7	ς, Υ	3 0	,	19	
GO-FL3	7.6		٥	7.3	0,5	٥		10	
	ED 400	 C.	9	7.7	(B)	0	, ro	(*) (4)	
CONSTITUTION (ATE-593)	en en	5.1	9	7.0	1. Tr	4.3		10	
FINESSE II	7.3	61 10	4.3	r-	5. U.	en en	co Y	10	
LEGITIMATE	7.7	6,3	50	o)	5,3	3.7	112		
MRF 210	m (~	6.3	 	(O)	4.3	3,6	ŗ.	, T	
ERPTOR (CIS-TP-33)	6.7	٤.,	5,0	7.7	6.4	7.0	7.7	9	
CIE-TF-67	4.3	ro 40	6.3	r .	æ. s.	5.0	11	ت ن	
ひね・1の	6.7	6.7	я Э	7.0	£. 7	7. 3	•	0	
en -	£.	0.0	6.4		w.	ro,	ţ-,	6.0	
	3.6	6.t	en ch	7.0	η) Γ.	rs er	3.0	6, 8	
SOUTH PAW (MRF 24)	Ø,	6.7	0	m	4.3	2,0	٠. د.	0.9	
AVENGER (L12)	7.0	6.0	en 40	3.0	£.	17	-	0.9	
BAR FA 10R7	7.0	₽. ₩.	5,0	w,	4.0	٦, ١	8,0	6.0	
BILTHORE	7,0	 	6,0	e,	m	0.4	0.8	6.0	
Laranie	6,7	6.3	en 15	0	កា មា	3 0	6.3	8.0	
TRACER	6.7	5.3	eri Ui	7. 7	ະຄ ເກ	3.0	63 F	0.9	
EARLEXAS II	6.3	5,3		e .	5.1	2.7	اب د	6.0	
K01-E08	er.	0.5	5,0	0.4	5.0	3.7	7.0	0.3	
C18-29-64	٥.٠	6.3	ري د	0		1~	6.0	0.0	
ELISA	F	6.0	٠ و	m I-	œ.	ž.	6.5	6.0	
:	3.0	6.0	٠.		4.3	e.		φ. 0	
roles if (Arr 706)			 	0 6	ল ক	2.7	L.	6.0	
ATE (UZ	0,	دا	r.		r-, ug	2,3	0	9.0	
BRAVO	ki .		a, o	0	6,3	۳ ۳	j	g. 0	
EXPEDENTON (ATE-803)	۷. ۶	6.0	4.7		e, 3	9.0		0.8	
GRANDE II	6.1	۶.۶	5.	€.0	B. 1	2.3		6.0	
	r .	6.0	m m	7.0	5.0	F * 15	6.0	9.0	
DOMESTAN CD		9	n,	e)		۲. د	5.5	9.0	
10 mm	· ·	6,7	5.7	7.7	6.0	2.3	5.5	on on	
	٦.0	0.10	e e	0.8	5.7	6,50	٠. ت	ر د د	
	(·	F)	r- เก๋	7.0	4,7	3.0	٥.	61 157	
FIREBIRD (CIS-TE-65)	F . 1	٤,3	4.7	λ M	e.	in.	9°-9	9.9	
m d late	7.3	er.	0,0		0.8	2.7	6.	ω. σ.	
DAYTONA (MRF 23)	٤.9	.3	5.0	г. С.	4.0	2.7	۲.	η: Ευ	

TABLE [, BROWN BATCH (WARM TEMPERATURE) PAINGS OF TALL PESCUE CULTIVARS 1/ (COHP'D)

DROWN PATCH RATINGS 1-9, 9-NO DISEASE 2/

NAME 25

NEE 2

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TO DETERMINE STATISTICAL DIFFERENCES ANONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANGTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN TRIS VALUE IS LARGER THAM THE CORRESPONDING LED VALUE (LED 0.05). 7

LE | C. PYTHIUM BLI

1	
CULTIVARS	
FESCUE	
PALL	
ö	- 1
308	2003 DANA
(AGEX)	
再 11641	
PYTHIUM	

Ĉ¥
DISEASE
ON⇒ 6
1-9;
ratings
BLICHT
PYTRIUM

	THE	以外出版	
TROOPER (\$1-TFGR3)	0.6	80 20 20 20	
		1	
1001.2	0 c	•	
	⇒ . n •		٠٠٠; ·
ď.	۳. ش	OLYMPIC GOLD	
BAK FR 1003	0.0	PICASSO	
BAR FA 1CR1	C.06	PICK TF B-47	
BARLEXAS	D &	PICK 2MG	
BARLEXAS II	Φ. σ.	FLANTATION	
881	9.0	TOROSORG	
BOWSAI	9.0	DYNAMIC (PST-87E)	
BRAVO	0.6		
0.2.2.2.PD	G.,		ايلا
CAYENNE	0.6		*
ここらーでデービア	0.6	FIDELITY (PST-ST1)	
CONSTITUTION (ATT-593)	9.0	53	
DAYTONA (MRF 23)	0.4		
DLF~J210	0.0	最後国力の	
DOMINION	0.0	RAPEOR (C15-77-33)	
DYNASTY	୍ ଓ ଓ	REBEL SEMIRY	
BR 163	0.0	REGINERA II (SRX 805)	
ELISA	0.0		
FALCON LI	0.01	RIVERSYDE (VROSERDS 4361)	
FINELANN ELITE (DISD)	ф. 80	[MRP 74)	
FIREBIRD (CIS-TF-65)	0 . 0	SOMERRE CROICE IT	-
FIVE POINT (MCN-RC)	٠ ټ٠	62 6250	
FOCUS	. D. G	68 3550 (SRX 8883)	
30FL3	9,6	3600	
\$0-RD4	9.0	ST 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
SO-SIU2	0.6	THE HEAT	
SUARDIAN-21 (ROBERTS DOL)	0.6	THEMPHOT	
Jr-12	0.6	TOKABAWK GT	
40.14	9,0	TRACER	
ケーサン	0.0	TULSA II (ATF 706)	
K01-E09	D.¢.	TURBO (CAS-MCI)	
K01-14AF	Ð.¢	UT-165	
K*-31 #+	9.0	WOLFPACK	
LEGITIMATE	9.0	WYARE	
NA 136	0.0	ULTIMATE (01-RUIOR2)	
MAGELLAN (OD-4)	9.0	386 F	
MATADOR	0.6	ATE 707	
MILLERHIUH	9.0	ATE 799	
MRF 210	9.0	BARRERA	
NRF 25	9.0	BARRINGTON	
NRF 26	9.0	BILTMORE	
20 20 20	<		

table $\mathcal{V}_{\mathcal{L}}$ (cont'd) pythium blight (july) ratings of tall froud cultivars 1/2003 data

PPTHIOM BLIGHT RATINGS 1-9; 9-NO DISEASE 2/

NAME	TWN.	Name	DMG
40 (ME) (ME)	l~ 40	K01-E03	6.3
CIS-II-13	h	MRP 29	m,
COCHISE III (018)	۲, ۵۱	WA-TDD	8.3
COLOTE	tu	PADRE (NG4)	60
DAVINCI (LTF-7801)	۲.۵	FICK-00-APA	es m
DP 50-9082	w	からなーならば	. 41
DP 50-9226	٠. ٣	CIS-ESE	· 60
SNDSAVOR	6.3	SCORPION	
60-002	fr. ery	SILVERSHAR (POT-SASE)) r:
GREWILD (F-58)	f-	TAR HEEL II (FRI-5TRI)	, m
JAGOAR 3	t-, w	C11~KB3	M . 50
31-13	I	ESCRIADE (01-0R01)	0.60
ひかしむ	μ.,	ATP 206	· 69
J##F#-2000	F + B	BINGO	0,0
KALAHARI	p. 1	FORTE (BE-2)	0.8
KITTY HAWK 2000	6.0	MA 158	0.6
LANCER	6.7	283-582	60
LARAMLE	יין כנו	102 AC	. c.
MA 127	1, 10	K-4	
MASTERPIECE		REBEL SKEDA	0
MRF 211	*- w	TITANIOM (SEE	0.8
PET-53T	tn. ,	BLACKWAPCH (FICK-003-01)	1
PST-SKI	2,7	GRANDE 11	r
PST-SEU	r * ci	JUSTICE (RB2-01)	
PURE GOLD	1-, 20	K01-8067	7.7
SIGNIA	۲,3	FALCON IV (F-4)	7.3
SILVERADO II (PSI~578)	C . 49	INFERRIO (JR-99)	
STONEMALL (JT-18)	6.7	K01-8015	M. C.
1991		REMBRAGOT	4
TARCE (CAS-157)		ATF 102	7.0
4766	r-, eu	COVERANT (APE 802)	7.0
TITAG LIO.	۴. س	PET-5F2D	7.0
2ND MILLENNIUM	m.	имтеннос	9.0
AVENGER (1.12)		FINESSE II	P. 49
09-44-510	r;		
EXPEDENTION (ATE-803)	6,33	ISD VALUE	2.3
		(%)	6,3

TO DEFERRING STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CONRESPONDING LSD VALUE (LSD 0.05), 7

C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIANTON OF THE HEAM IN EACH COLUMN.

REPRODUCE LOCALLY. Include form number and edition date on all	reproductions. Fi	ORM APPROVED - OMB No. 0581-0055
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE EXHIBIT E	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).	
STATEMENT OF THE BASIS OF OWNERSHIP		
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Seed Research of Oregon	SRX 84RH00	Grande II
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	5. TELEPHONE (Include area code)	6. FAX (Include area code)
27630 Llewellyn Rd.	(541) 757-2663	(541) 758-5305
Corvallis, OR 97333	7. PVPO NUMBER	
	20	0400292
8. Does the applicant own all rights to the variety? Mark an "X" in the		
9. Is the applicant (individual or company) a U.S. national or a U.S. ba	ased company? If no, give name of co	untry. YES NO
10. Is the applicant the original owner? YES	NO If no, please answer one	of the following:
a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. Nationa	• •
		,
b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company? YES NO If no, give name of country		
11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed): Original breeder is employee of Seed Research of Oregon and rights are assigned to Seed Research through employment agreement. Additional germplasm obtained from Rutgers University and royalties are paid based on contractual arrangement.		
genipenia comment non rengero o in totally star to julio aco para out on contractant and included		
PLEASE NOTE:		
Plant variety protection can only be afforded to the owners (not license	ees) who meet the following criteria:	
1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.		
If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.		
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.		
The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.		
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.		
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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or cell (202) 720-5964 (voice and TDD). USDA is an equal opportunity provide and amployer.

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To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20260-9410, or call (800) '785-3272 (voice) or (202) 720-6382 (TDD). USDA is a

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

EXHIBIT F **DECLARATION REGARDING DEPOSIT**

NAME OF OWNER (S) Seed Research of Oregon	APPRESS (Street and No. or RD No., City, State, and Zip Code and Country) 27630 Liewellyn Rd.	TEMPORARY OR EXPERIMENTAL DESIGNATION SRX 84RH00	
	Corvallis, OR 97333	VARIETY NAME Grande	
NAME OF OWNER REPRESENTATIVE (S) Dr. Leah A. Brilman	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 27630 Liewellyn Rd. Corvallis, OR 97333	**************************************	

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Jean a. Berlman